

REMARKS/ARGUMENTS

A. Interview with Examiner

In the advisory action mailed April 17, 2007, claims 1-17 and 20-30 continued to be rejected. The examiner was contacted and a telephone interview was scheduled. The interview took place on June 12, 2007 at 11:00 AM Eastern Standard Time.

During the interview, a broad overview of the application was discussed. Claim 1 was discussed in detail. Other claims either depend directly on claim 1 or contain one or more of the elements discussed. The applicant's representative further distinguished the cited references Glass and Delic. The examiner acknowledged the applicant's position and arguments relating to the claims but believes the independent claims should have further limitations. However, she was unable to suggest any such limitation and emphasized that prosecution of the above application has ended. The examiner agreed that she will once again review the arguments written for the response after final rejection after clarification of some of the claimed features. The arguments in favor of patentability filed with the Amendment After Final Rejection dated March 22, 2007 are reprinted below for the convenience of the examiner.

The applicant's representative and the examiner agreed that filing an RCE with suitable claim amendments may bring the application into condition for allowance. Furthermore, the applicant's representative suggested another telephone interview once the RCE is filed with the examiner and the examiner's supervisor. The examiner agreed. Additionally, the applicant's representative suggested a demonstration of an embodiment of the invention disclosed in the application sometime in the future to help the examiner better understand the unique features of the application. The examiner agreed this will be helpful.

Per the examiner's suggestion, applicant has amended the independent claims to clarify some of the unique features of the claimed invention. Reconsideration and allowance of claims 1-17 and 20-30 in light of the interview and arguments herein are respectfully requested.

A. Advisory Action

In the advisory action Mailed April 17, 2007 the examiner stated “Examiner believes that Glass teaches the invention substantially as claimed, comprising determining a level of a document similarity by comparing the inclassified [sic] document to a predetermined threshold [ab] and storing a data representative by assigning a topic classification or a sample message associated with handprint information for the new message [0340; 0374-0376- and a hypertext linked URL to related files [0341]. Delic teaches that the document repository is automatically updated by the system [see fig. 3; 0037-0044].” (Advisory Action, page 1). Applicant respectfully disagrees, for the following reasons.

Independent Claim 1:

Applicants respectfully assert that Glass does not render the instant invention obvious in light of Delic because neither reference taken or alone or in combination teaches or suggests all of the elements of claim 1. Claim 1 recites:

In a system including a document repository, a method comprising:
a) **determining, automatically**, a level of similarity between at least two of a plurality of discrete elements stored in the document repository; and
b) storing data representative of a link between the elements **based in-part on the level of similarity within the document repository**;
c) **wherein said document repository is automatically updated by said system whenever a discrete element is added to the document repository.**

At least the bolded features of claim 1 are neither shown nor suggested by Glass or Delic, taken alone or in combination.

The cited references do not teach or suggest the elements of claim 1

The first feature of claim 1 recites, “determining, automatically, a level of similarity between at least two of a plurality of discrete elements stored in the document repository.”

In the abstract, Glass manually reviews documents and compares new documents against its sample of manually reviewed documents. Furthermore, the 'predetermined threshold' the examiner quotes from the abstract refers to exact chunks of an incoming email to a sample email. The present invention does not compare exact chunks of a single document type (email) to an exact chunk in another email. The present invention is directed to determining a level of similarity between at least two of a plurality of discrete elements. The 'elements' of claim 1 refer to different types of documents that are within a repository. For example, an HTML file or a Microsoft Word document or a PowerPoint presentation are all discrete elements that may be stored in a repository and may exhibit levels of similarity.. (See for example, the specification of the present application at paragraphs [0011] and [0012]).

Furthermore, as discussed during the interview, paragraphs [0340] and [0374]- [0376] of Glass do not disclose "storing a data representative of a link between the elements based in-part on the level of similarity." Applicant has thoroughly searched the cited paragraphs above and cannot find anything that corresponds to storing a data representative of a link within the document repository. The examiner states this unique feature is disclosed in Glass by "assigning a topic classification or a sample message associated with handprint information for the new message [0341; 0374-0376] and a hypertext linked URL to related files [0341]." The examiner misconstrues this feature of the invention. As used in current claim 1, storing a data representative of a link refers to storing and keeping track of a relationship between the discrete elements. This is not reflected in any of the cited paragraphs of Glass. Furthermore, paragraph [0341] refers to reviewing an annotated email message and is not related to the element above. Additionally, the feature has been updated as emphasized above to further clarify this unique feature of claim 1.

The examiner further asserts that "Delic teaches that the document repository is automatically updated by the system" and cites Fig. 3 and paragraphs [0037] – [0044]. Applicant respectfully disagrees. The cited references above do not disclose automatically updating a document repository with a data representative of the relationship between the at least two discrete elements. Furthermore, feature element (c)

has been amended as emphasized above to further clarify the distinguishing features of claim 1.

Applicants respectfully assert that Glass does not render the instant invention obvious in light of Delic because neither reference teaches or suggests the elements of claim 1, or of dependent claims 2-6. For the foregoing reasons, it is respectfully submitted that the rejection of claim is overcome and should be withdrawn. Reconsideration and allowance of claims 2-6 is respectfully requested.

Independent claim 7 and independent claim 20

Independent Claim 7 and independent claim 20 are amended to clarify the unique features of the present invention as reproduced below. With the current amendment, applicant requests the removal of the rejections of claim 7 and claim 20 and the rejections of all of the claims that depend on them.

A method for determining a relationship between documents, the method comprising:

- a) retrieving a plurality of documents from a document repository;
wherein said document repository may contain documents of various types;
- b) segmenting at least two documents of the plurality of documents into a plurality of conceptually meaningful segments;
- c) determining if a segment of one document is related to a segment of another document, the one document being of a first type and the other document is of either a first type or of a second type; and
- d) storing data representative of the relationship between the segments within the document repository.

20. (Currently Amended): A system for determining a relationship between documents, the system comprising:

- a) a retrieval tool for retrieving a plurality of documents from a document repository;

- b) a segmentation tool for segmenting at least one document of the plurality of documents into a plurality of conceptually meaningful segments; and
- c) a data storage device configured to store data representative of a link between at least one segment and one selected from the group comprising the plurality of segments and the plurality of documents.

Amenment After Final Rejection dated March 22, 2007

REMARKS/ARGUMENTS

Claims 1-17 and 20-30 are pending in the application. These claims stand finally rejected. Reconsideration and allowance of claims 1-17 and 20-30 in light of the arguments herein are respectfully requested.

It is submitted that the Final Office Action has failed to make out a prima facie case of obviousness of the invention defined by claims 1-17 and 20-30. A prima facie case of obviousness requires (1) some suggestion to combine the reference teachings; (2) a reasonable expectation of success' and (3) the reference must teach or suggest *all the claim limitations*. MPEP §2143 (*emphasis added*).

B. Claims 1, 2, 4 and 5 stand rejected under 35 U.S.C. §103(a)

In the office action mailed January 22, 2007, claims 1, 2, 4 and 5 were rejected under 35 U.S.C. §103(a) as being unpatentable over Glass in view of Delic.

Independent Claim 1

Applicants respectfully assert that Glass does not render the instant invention obvious in light of Delic because neither reference taken or alone or in combination teaches or suggest all of the elements of claim 1.

In a system including a document repository, a method comprising:

- a) **determining, automatically**, a level of similarity between at least two of a plurality of discrete elements stored in the document repository; and
- b) storing data representative of a link between the elements **based in-part on the level of similarity**;
- c) **wherein said document repository is automatically updated by said system.**

At least the bolded features of claim 1 are neither shown nor suggested by Glass or Delic, taken alone or in combination.

The cited references do not teach or suggest “determining, automatically, a level of similarity between at least two of a plurality of discrete elements stored in the document repository”

The first feature of claim 1 recites, “determining, automatically, a level of similarity between at least two of a plurality of discrete elements stored in the document repository.” In rejecting this element of claim 1, the Final Office Action cites sections within Glass, specifically: the Abstract; paragraphs 0065; 0082; 0202; 0196-0199; 0376; 0411-0412; and claim 35. Applicants disagree for several reasons.

In the abstract, Glass manually reviews documents and compares new documents against its sample of manually reviewed documents. Paragraph 0065 in Glass discusses Spam email and the ability of prior art to detect duplicate content in email messages. This is unrelated to the present invention.

Paragraph 0082 in Glass discusses prior art that uses keywords to filter junk email. Applicants are uncertain how this relates to the present invention.

Paragraph 0202 in Glass refers to finding new sample Spam documents and then manually reviewing the sample. The paragraph bears no relation to the above stated element in the present invention.

Paragraphs 0196-0199 also do not teach or suggest the above stated element of claim 1. The cited paragraphs in Glass merely compare exact chunks of a new email to chunks of predefined sample emails. This procedure is done by finding a ratio that signifies ‘the proportion of characters contained in semantically significant document chunks that are present in the sample document and also are present in the classified document.’ (§0199). The ‘document’ reference relates only to email messages.

Paragraph 0376 does not disclose the first element of claim 1. The paragraph relates to an alternative embodiment that also relates to capturing Spam email using a manual process. The cited paragraph relates to comparing the topic of an email message to the topics in the manually reviewed sample documents (see for example ¶0376; figure 8).

Paragraphs 0411-0412 also do not teach or suggest the first element of claim 1. Paragraph 0411 generally relate to a more detailed classification, by topic, of emails than 'junk' and 'not junk' that have been "topically classified using a manual process." Paragraph 0412 discusses having samples of Spam and keeping the sample list current.

Claim 35 relates to a method of classifying email messages by topic. The claim compares content of a new message to content of previously defined sample messages that have been manually prepared/annotated.

The cited references do not teach or suggest "storing data representative of a link between the elements based in part on the level of similarity."

The second feature of claim 1 states "storing data representative of a link between the elements based in part on the level of similarity." In rejecting this element, the Final Office Action asserts that paragraphs 0375-0376 and paragraph 0390 disclose 'storing data representative.' Applicants respectfully disagree. Paragraphs 0375-0376 relate to storing a 'similarity score' between comparing new *messages* to a finite set of manually reviewed and annotated *sample spam messages*. Paragraph 0390 discloses a method of handling new email messages that do not match any of the manually reviewed and annotated sample messages "but are similar in a significant way to other messages recently received by one or more user network email servers." In essence, this paragraph discloses the identification of bulk email messages.

In contrast, in the present invention, 'storing data representative' refers to storing a link in a link database that identifies the relationship between the at least two discrete elements. (¶0041; Figure 1, 155).

The cited references do not teach or suggest "wherein said document repository is automatically updated by said system"

The Final Office Action asserts that paragraphs 0341, 0352, and 0365 of Glass teach ‘of a link between the elements based in part on the level of similarity.’ Applicants respectfully disagree. Paragraph 0341 refers to reviewing an annotated email message. Paragraph 0352 refers to viewing an email, during the manual process, in either annotated or non annotated form. Paragraph 0365 discloses storing the manually annotated sample email messages and how emails are delivered on the network. Nothing in any of the paragraph teaches or suggests storing data representative ‘of a link between the elements based in part on the level of similarity.’ Furthermore, the present inventions ‘**based in part on the level of similarity**’ (**emphasis added**) discloses that storing the data of a link between the elements is only ‘based in part’ on the level of similarity. Even if Glass is to be expanded beyond identifying Spam emails, there are several considerations that go into the present invention other than finding exact duplicates of text. For example, documents within a specific project repository, the name of a file, the location of a file, the type of file, figures within a file, etc. may also contribute to the ‘data representative of a link’ to be stored. Applicants can find no suggestion or teaching in Glass that discloses this.

The Examiner acknowledges that Glass “does not explicitly teach that ‘said document repository is automatically updated by said system’ although it has the same functionality of automatically updating a user network copy of a portion of the information repository [0217].” Applicants respectfully disagree. Paragraph 0217 in Glass reads “a process for automatically updating a user network copy of a portion of the information repository.” This paragraph merely states that data is copied from one location to another. The ‘automatic’ feature in the present invention relates to automatically detecting similarities within a repository and automatically classifying sections within a document. The document repository in Glass is manually updated, requiring a human to go through ‘sample’ documents, manually annotate specific items to look for in the document, and then manually input the ‘sample’ document with the tagged annotations in the database. (See for example Fig. 2; “The sample documents have been manually reviewed and annotated to distinguish document classifications...”).

In an effort to fill in the teaching missing from Glass, the Final Office Action asserts that Delic teaches that ‘said document repository is automatically updated by said system

[each document is assigned at least one class by an automatic process]” and cites paragraphs 0037-0044 of Delic. Examples of the ‘class’ in Delic include whether the knowledge based document is installation related, boot related, etc.

Furthermore, Delic discloses a knowledge base indexed by a search engine. (Abstract). A user puts in a query and the system in Delic returns a set of documents that relate to that query.

Applicants respectfully assert that Glass does not render the instant invention obvious in light of Delic because neither reference teaches or suggests the elements of claim 1, or of dependent claims 2-6.

Applicants can find no teaching in Glass that alone or in combination with Delic, teaches or suggests the instant invention. Glass teaches a manual method of distinguishing incoming email messages from spam. Delic teaches a knowledge based system.

Applicants respectfully assert that Glass does not render the instant invention obvious in light of Delic because neither reference teaches or suggests the elements of claim 1, or of dependent claims 2-6. For the foregoing reasons, it is respectfully submitted that the rejection of claim is overcome and should be withdrawn. Reconsideration and allowance of claims 2-6 is respectfully requested.

C. Claims 3, 6-17 and 20-30 stand rejected under 35 U.S.C. §103(a)

Claims 3, 6-17 and 20-30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Glass in view of Delic, and in further view of Wical. Reconsideration of this rejection is respectfully requested. Claims 3 and 6 were discussed previously as they are dependent on claim 1. This portion of the response focuses on the remaining claims.

It appears the typo in the previous office action, dated August 2, 2006, that causes mis-numbering of responses to the claims was not corrected. The mis-numbering begins with claim 5. The office action states: ‘as to claim 4, Glass teaches the invention substantially as claimed. Glass further teaches that the document repository includes at least two physical repositories.’ However, this is a limitation of claim 5, not of claim 4.

Accordingly, it appears the office action is referencing the claim 7 limitations when discussing claim 6. The remainder of these remarks will proceed according to this understanding.

Independent Claim 7

Claim 7 recites:

A method for determining a relationship between documents, the method comprising:

- a) retrieving a plurality of documents from a document repository;
wherein **said document repository may contain documents of various types**;
- b) segmenting at least two documents of the plurality of documents into a plurality of conceptually meaningful segments;
- c) determining if a segment of one document is related to a segment of another document, **the one document being of a first type and the other document is of either a first type or of a second type**; and
- d) storing data representative of the relationship.

(emphasis added)

At least the **bolded** limitations are neither shown nor suggested by Glass, Wical, or Delic, taken alone or in combination.

In the Final Office Action, the examiner states “Glass further teaches that said document repository may contain documents of various types” citing figure 4, items 312 and 316. Figure 4 in Glass pertains to segmenting an email message into parts. Items 312 and 316 are the segmented parts representing portions of email text/plain and text/html respectively. First of all, these are parsed segments of **one** email message. In contrast, the present invention discloses retrieving a plurality of documents from a document repository that **may contain documents of various types**. All of the documents in Glass are email messages. Figure 4 in Glass teaches taking an email message and dividing it into parts. Figure 4 represents these parts. 312 represents the part of an email that is html/text and 316 represents the portion of an email that is

text/html. Furthermore, unlike claim 7 which may contain documents of various types, Glass is limited to reviewing the text within an email message and looking for an exact match in one of the sample email messages. Thus, Glass does not disclose or suggest retrieving a plurality of documents from a document repository; wherein **said document repository may contain documents of various types.** (*Emphasis added*).

The Final Office Action further asserts that Glass teaches “the one document being of a first type and the other document is of either a first type or of a second type” citing claims 11-20 and elements 840-850 of fig. 3-4). Elements 840-850 are not contained in figures 3-4. These elements are contained in figure 8. Figure 8 represents sections of an email message. In paragraph 0349, Figure 8 is described as “a manual document review user interface...illustrative of a screen display of an annotatable sample message file. This view of a sample message shows its content displayed as a vertically arrayed sequence of individual message body fingers 840-850.” There is nothing in figure 8 or figures 3-4 that disclose or suggest “the one document being of a first type and the other document is of either a first type or of a second type” disclosed in the present invention.

Glass Claims 11-20 also do not disclose this element of claim 7. The claims represent **portions of** an email message. These claims represent the various segments that may be parsed from an email and represented by the figures discussed above. The examiner asserts that a ‘linked file or an attached file’ is disclosed in the document. The linked file the examiner discusses is in claim 17 of Glass where it states in part “**partial document content** feature may be defined as a linked file’s metadata.” Again, Glass is referring to one file (an email message) and the contents within that file. Furthermore, what is being disclosed in these claims is data within an email message (metadata) that reflects the existence of a linked file. The attached file the examiner refers to is within claim 14 in Glass where it states in part ‘partial document content feature types’ may be defined as an attached file’s contents.” The same argument stated for claim 17 is presented here. There is nothing in figure 8 or figures 3-4 that disclose or suggest “the one document being of a first type and the other document is of either a first type or of a second type” disclosed in the present invention.

Applicants can find no teaching or suggestion in Glass as to the elements described above. Accordingly, Applicants respectfully request that the rejection of claim 7 be withdrawn. Claims 8-17 are dependent from claim 7 and are allowable for the same reasons. For the foregoing reasons, withdrawal of the rejection of dependent claims 8-17 is respectfully requested.

Independent Claim 20

Claim 20 and all claims dependent from it, claims 21-30, should be allowed for much of the same reasons discussed above for independent claim 1 and independent claim 7. The Final Office Action asserts that the element “a memory configured to store data representative of a link between at least one segment and one selected from the group consisting the plurality of segments and the plurality of documents” is disclosed by the same paragraphs in Glass that claim 1’s element “determining automatically a level of similarity between at least two of a plurality of discrete elements stored in the document repository.” Applicants respectfully disagree with this assertion for the same reasons outlined in the discussion of claim 1 above. Furthermore, since Glass is limited to determining whether incoming email includes the exact text found in a sample message, it would not be obvious to extend Glass to include a memory linking tool.

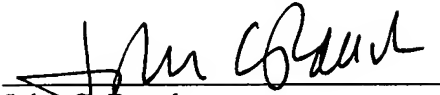
Thus, it is respectfully submitted that the rejection of claim 20 is overcome and should be withdrawn. Claims 21-30 are dependent from claim 20 and are allowable for the same reasons. For the foregoing reasons, withdrawal of the rejection of dependent claims 21-30 is respectfully requested.

CONCLUSION

With this response, the application is believed to be in condition for allowance. Should the examiner deem a telephone conference to be of assistance in advancing the application to allowance, the examiner is invited to call the undersigned attorney at the telephone number below.

Application no. 10/661,805
Amendment dated: June 22, 2007
Reply to advisory action mailed: April 17, 2007

Respectfully submitted,

A handwritten signature in black ink, appearing to read "John G. Rauch", is written over a horizontal line.

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March 22, 2007
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